

AREA SOURCE PROGRAM: UPDATE AND REGISTRATION PERMITS

**Mary Peyton Wall
Bureau of Air Quality, Air Toxics Section
October 29, 2008**



National Urban Air Toxics Strategy

- **Urban Air Toxics Strategy – 112(k) of Clean Air Act Amendments (CAAA)**
- **Applies to area sources (non-major Hazardous Air Pollutants (HAP) sources) and mobile sources**
- **Identify 30 HAPs that are the greatest threat (33 were identified)**
- **Identify source categories accounting for 90% of those HAP emissions**
- **Achieve a 75% reduction in cancer attributable to stationary sources**

Area Source Program

- 112(k) of CAAA
- 70 area source categories requiring regulations
- Standards can be Maximum Achievable Control Technology (MACT) or “GACT”
 - Generally Available Control Technology
 - less stringent than MACT
 - can be work practices

Area Sources....so far

Category / # of sources in SC	Promulgation Date
Dry Cleaning (Perc) / 300 to unknown	1993
Halogenated Solvent Cleaning (Degreasers) / 15 (2 TV, 13 area)	1994
Decorative and Hard Chromium Electroplating / 30 (5 TV, 4 CM, 21 area)	1995
Commercial Sterilization (Ethylene Oxide) / 1 area	1994
Marine Vessel Loading / 1	1995

Area Sources....so far

Category / # of sources in SC	Promulgation Date
Publicly Owned Treatment Works (POTW)	1999
Secondary Aluminum / 4	2000
Municipal Solid Waste Landfills / 11	2003

“New” Area Sources

Category / # of known sources in SC	Promulgation Date
Other Solid Waste Incinerators (OSWI) / 1	12/16/05 (promulgated)
Oil and Natural Gas Production / none	06/2005 (proposal) 12/2006 (promulgated)
Hospital Sterilizers / less than 20	11/06/06 (proposal) 12/28/07 (promulgated)
Gasoline Distribution (Terminals/Plants/Pipelines) / less than 25	11/09/06 (proposal) 01/10/08 (promulgated)
Gasoline Distribution (Gasoline Dispensing Facilities) / over 4000	11/09/06 (proposal) 01/10/08 (promulgated)
Stationary Internal Combustion Engines / Unknown	06/12/06 (proposal) 01/18/08 (promulgated)

“New” Area Sources

Category / # of known sources in SC	Promulgation Date
Primary Copper Smelting	10/06/06 (proposal)
Secondary Copper Smelting	01/23/07 (promulgated)
Primary Nonferrous Metals	No sources in SC
Polyvinyl Chloride & Copolymer	
Acrylic Fibers Production / none	04/04/07 (proposal) 07/16/07 (promulgated)
Chemical Manufacturing:	04/04/07 (proposal)
Chromium Compounds / none	07/16/07 (promulgated)
Lead Acid Battery Manufacturing / none	04/04/07 (proposal) 07/16/07 (promulgated)
Carbon Black / none	04/04/07 (proposal) 07/16/07 (promulgated)

“New” Area Sources

Category / # of known sources in SC	Promulgation Date
Flexible Polyurethane Foam Production / none	04/04/07 (proposal) 07/16/07 (promulgated)
Wood Preserving / 7	04/04/07 (proposal) 07/16/07 (promulgated)
Clay Ceramics Manufacturing / none	09/20/07 (proposal) 12/26/07 (promulgated)
Pressed and Blown Glass & Glassware Manufacturing / none	09/20/07 (proposal) 12/26/07 (promulgated)
Secondary Nonferrous Metals Processing / none	09/20/07 (proposal) 12/26/07 (promulgated)
Electric Arc Furnaces / 4	09/20/07 (proposal) 12/28/07 (promulgated)

“New” Area Sources

Category / # of known sources in SC	Promulgation Date
Iron and Steel Foundries / 4	09/17/07 (proposal) 01/02/08 (promulgated)
Paint Stripping and Miscellaneous Surface Coating Operations (Auto Body Refinishing) / over 1000	09/17/07 (proposal) 01/09/08 (promulgated)
Plating and Polishing Operations / less than 50	03/14/08 (proposal) 07/01/08 (promulgated)
Metal Fabrication and Finishing: Nine Source Categories / unknown	04/03/08 (proposal) 07/23/08 (promulgated)
Ferroalloys Production Facilities	09/15/08 (proposal) 12/2008 (promulgate)
Agricultural Chemicals and Pesticides Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)

“New” Area Sources

Category	Due Date
Asphalt Processing and Asphalt Roofing Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)
Cyclic Crude and Intermediate Production	Fall 2008 (proposal) 12/2008 (promulgate)
Industrial Inorganic Chemical Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)
Industrial Organic Chemical Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)
Inorganic Pigment Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)
Miscellaneous Organic Chemical Manufacturing (MON)	Fall 2008 (proposal) 12/2008 (promulgate)
Pharmaceutical Production	Fall 2008 (proposal) 12/2008 (promulgate)

More Area Sources

Category	Due Date
Plastic Materials and Resins Manufacturing	Fall 2008 (proposal) 12/2008 (promulgate)
Synthetic Rubber	Fall 2008 (proposal) 12/2008 (promulgate)
Aluminum Foundries	Spring 2009 (proposal) 06/2009 (promulgate)
Brick and Structural Clay Products	Spring 2009 (proposal) 06/2009 (promulgate)
Chemical Preparation	Spring 2009 (proposal) 06/2009 (promulgate)
Copper Foundries	Spring 2009 (proposal) 06/2009 (promulgate)

More Area Sources

Category	Due Date
Nonferrous Foundries, nec	Spring 2009 (proposal) 06/2009 (promulgate)
Paint and Allied Products	Spring 2009 (proposal) 06/2009 (promulgate)
Prepared Feeds Materials	Spring 2009 (proposal) 06/2009 (promulgate)
Sewage Sludge Incineration	Spring 2009 (proposal) 06/2009 (promulgate)
Industrial Boilers	2010 (proposal)
Institutional/Commercial Boilers	2010 (proposal)

Area Sources' Role

- **Comment on proposed regulations**
 - **Control requirements**
 - **Work practice standards**
 - **Permit requirements**
 - **Recordkeeping/reporting**
- **Look for outreach packages**
- **Call us!!!**
- **Be prepared: time factor**
 - **Compliance dates will vary**

DHEC's Role

- **Air Toxics Section, Bureau of Air Quality**
- **Implements Federal and State Air Toxics Programs (MACT, EPCRA, 112(r), Area Source, etc.)**
- **Review reports**
- **Technical assistance to industry**
- **Applicability determinations**
- **Outreach**
- **Assist in inspections**

Area Sources in SC

- **Estimated permitted sources universe**
 - **Total permitted affected sources: 1871**
 - **Title V (not major for HAP): 120**
 - **Conditional major: 434**
 - **State Minor: 1317**

Area Sources in SC

- **Non-permitted sources: Unknown or best guess**
 - Dry Cleaners (~300)
 - Gas stations (4000)
 - Auto body shops (1100)
 - Sources with generators, boilers and heating equipment (unknown)

Area Sources Workgroup

- **Subcommittee of Air Toxics Workgroup**
- **Air Toxics, Small Business Environmental Assistance Program (SBEAP), Engineering, Compliance, Regions, Emissions Inventory**
- **Registration permits**
 - **Un-permitted facilities**
 - **Environmental Results Program**
- **Outreach**

Area Source Strategy

- **Three types of area sources in SC**
 - **Type “1”:** Affected sources are currently permitted facilities
 - Ex – wood preserving, hospitals
 - **Type “2”:** Generally un-permitted industrial source specific categories
 - Ex – dry cleaners, autobody shops
 - **Type “3”:** General Categories
 - Impact both permitted and un-permitted
 - Ex – generators

Area Source Strategy Cont...

- **Type “1” source categories**
 - **Business as usual**
 - Fold requirements into operating permit
 - Inspect on usual schedule, depending on permit status
 - **Outreach Packages**
 - Send to facilities, includes a letter, regulation, timeline, fact sheet, EPA brochures, contact information
 - **Fees**
 - Assess current category
 - May create new tonnage categories

Area Source Strategy Cont...

- **Type “2” source categories**
 - Identify the number of possible sources
 - Registration Permits
 - Environmental Results Program (ERP)
 - Autobody Shops
 - Compliance Assistance
 - Self Certification
 - Performance Measurement
 - Combination of ERP/Registration
 - Annual Fees

Area Source Strategy Cont...

- **Type “3” source categories**
- **Outreach focus**
 - **Website**
 - **Fliers from regional offices**

“Small” Area Source Challenges

- **“Small” = Typically un-permitted**
- **Identifying the sources State-wide**
- **Outreach – lots of training, workshops, site visits**
- **Areas impacted: Permitting, Modeling, SBEAP, Emissions Inventory, Regions, Air Toxics, Enforcement, Source Evaluation, Technical Management**

Registration Permits

- **South Carolina Air Pollution Control Regulation 61-62.1, Section II(I)**
 - Legislative action
- **Specific stationary source groups**
- **Uncontrolled potential to emit (PTE)**
 - < 10 tons per year (tpy) of any single HAP
 - < 25 tpy of any combination of HAPs
 - < 100 tpy of volatile organic compounds (VOC)

Registration Permits, cont.

- **Must contain standard permit conditions required in SC DHEC R 61-62.1 Section II(J)(1)**
- **SC DHEC R 61-62.1 Section II(J)(2) allows special conditions to be added**
 - **Conditions and requirements of the area source regulations**

Registration Permits, cont.

- **Must meet criteria specified to qualify for the registration permit**
- **Plain language permit that will be easy to follow**
 - **Potential formats include checklists and/or certificates**
- **Outline specific conditions and requirements of the area source regulations**

Autobody Shops

- **Subject to 40 CFR Part 63, Subpart HHHHHH (6H), Paint Stripping and Miscellaneous Surface Coating Operations**
- **Over 1100 autobody shops**
 - **Most are un-permitted**
- **Requirements in the regulation include certified training for painters, spray booths (walled or curtains), HVLP spray guns, proper spray gun cleaning**

Autobody Shop Registration Permit

- **Will include components of the ERP**
- **Permit will be a checklist with the conditions of the area source regulation and state standard conditions**
- **Shops will be required to go through the checklist annually to determine if they are in compliance**
 - **Submit a Self-Certification to DHEC annually stating the compliance status**
- **If a shop is not in compliance, they must complete and submit a Return-to-Compliance form**

Autobody Shop Registration Permit

- **Permit is currently being developed**
 - Stakeholder group meeting in October
- **Permits will be issued for existing shops (built before September 17, 2007) on the compliance date: January 10, 2011**
- **Once the registration permit is complete, the permits will be issued for new shops when they start up**

Autobody Shops Compliance

- **DHEC will perform baseline inspections to determine current compliance status and where outreach efforts are needed most**
- **Workshops will be offered in 10-15 areas around the state in mid-2009**
- **DHEC will offer compliance assistance visits to any shop that wants help**
- **After the compliance date, DHEC will perform follow up inspections to determine effect of outreach efforts**

Autobody Shops Compliance

- **Return-to-Compliance forms**
 - Plan to indicate how and when the shop will get back into compliance
 - DHEC will offer any assistance that is needed, including visits to the shop
- **Failure to submit Self-Certifications and any required Return-to-Compliance forms may result in enforcement action**

Registration Permits and Fees

- **Fees for registration permits**
 - **Current Fees: \$41.96 per ton (actual emissions)**
 - **Most area sources emit < 3 tpy**
 - **Emissions based on industry averages**
 - **New area source categories**
 - **Use stakeholder process to get industry averages of existing sources within category**

Who to Call

- **General Air Toxics Questions**
 - Heinz Kaiser, Manager: 803-898-4089
- **Area Source Questions**
 - Mary Peyton Wall: 803-898-4064
 - Chemical categories, auto body shops, gasoline distribution
 - Megan Weidner: 803-898-2485
 - Metals, plastics, wood categories
 - Daniel Bailey: 803-898-3739
 - Hospitals, boilers, brick and clay

A full-page background image of a vast, deep blue ocean stretching to the horizon. The sky is a lighter blue with wispy white clouds. On the left side, a vibrant rainbow is visible, its colors reflecting on the water's surface. The word "Questions?" is centered in the middle of the image in a large, bold, black font.

Questions?

Overview of Latest Regulations

- **Subpart WWWW, Hospital Ethylene Oxide Sterilizers**
 - Affected source: each ethylene oxide sterilization facility at a hospital
- **Subpart YYYYY, Electric Arc Furnace Steelmaking Facilities**
 - Affected source: each EAF steelmaking facility
- **Subpart ZZZZZ, Iron and Steel Foundries**
 - Affected source: each iron and steel foundry
 - Requirements based on small or large foundry determination (metal melt production)

Overview of Latest Regulations

- **Subpart BBBBBB, Gasoline Distribution: Bulk Terminals, Bulk Plants, and Pipeline Facilities**
 - Affected sources: each bulk gasoline terminal, bulk gasoline plant, pipeline pumping station, and pipeline breakout station
- **Subpart CCCCCC, Gasoline Distribution: Gasoline Dispensing Facilities (GDF)**
 - Affected sources: each gasoline cargo tank during delivery of gasoline to a GDF and each gasoline storage tank

Overview of Latest Regulations

- **Subpart HHHHHH, Paint Stripping and Miscellaneous Surface Coating Operations**
 - **Affected sources:**
 - Paint stripping operations that use methylene chloride
 - Autobody refinishing operations that include motor vehicle and mobile equipment spray-applied surface coating
 - Spray application of coatings containing compounds of chromium, lead, manganese, nickel, or cadmium to any metal and/or plastic part or product

Overview of Latest Regulations

- **Subpart WWWW, Plating and Polishing Operations**
 - **Affected sources:**
 - Each tank used for non-chromium electroplating, electroforming, electropolishing, electroless plating, or other non-electrolytic metal coating operations (chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating)
 - Thermal spraying
 - Dry mechanical polishing

Overview of Latest Regulations

- **Subpart XXXXXX, Metal Fabrication**
 - **Affected sources: All equipment and activities associated with dry abrasive blasting, machining, dry grinding and dry polishing, spray painting, and welding operations at nine source categories**
 - **Electrical and electronic equipment finishing, fabricated metal products, fabricated plate work (boiler shops), fabricated structural metal manufacturing, heating equipment (except electric), industrial machinery and equipment finishing, iron and steel forging, primary metal products manufacturing, and valves and pipe fittings**